

Appl. No. 10/691,451
Amdt. Dated August 3, 2007
Reply to Office Action of May 3, 2007

Attorney Docket No. 81716.0111
Customer No.: 26021

REMARKS/ARGUMENTS:

Claim 2 is canceled without prejudice. Claims 1 and 20 are amended. Claims 1 and 3-34 are pending in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

The present invention relates to a fuel cell casing that is capable of accommodating a membrane electrode assembly, made of ceramics, small and highly reliable, a fuel cell using the same and electronic apparatus, and further relates to electronic apparatus having a fuel cell as a power source which fuel cell is a small, highly reliable, capable of accommodating a membrane electrode assembly and made of multilayer ceramics. (Applicant's specification, at p. 1, lines 5-11).

DOUBLE PATENTING REJECTIONS:

Claim 1 stands provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/877,970. Applicant respectfully elects to postpone responding until the rejection is no longer a "provisional" rejection.

Applicant believes the election to postpone a response is appropriate in view of the MPEP at 804(I)B which states,

"The 'provisional' double patenting rejection should continue to be made by the examiner in each application as long as there are conflicting claims in more than one application unless that 'provisional' double patenting rejection is the only rejection remaining in at least one of the applications."

CLAIM REJECTIONS UNDER 35 U.S.C. § 112:

Claims 1-3, 7, and 20 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly

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claim the subject matter which applicant regards as the invention. This rejection is moot with respect to claim 2 due to the cancellation of this claim. The Applicant respectfully traverses this rejection as to amended claims 1, 3, 7, and 20.

The Office states,

"The limitation 'which are formed on one principal surface and another principal surface thereof' in claim 1 in unclear whether the principal surfaces are referring to 'one surface' on the base body, the membrane electrode assembly, an electrolyte, a first electrode, or a second electrode. Clarification is required."

In response, Applicant changed "membrane electrode assembly having a first electrode and a second electrode disposed on one principal surface and another principal surface thereof" to --membrane electrode assembly having, in one principal surface and another principal surface thereof, a first electrode and a second electrode-- in claims 1 and 20. Claims 1 and 20, as amended, clarify that the surfaces are part of the membrane electrode assembly. Withdrawal of this rejection is thus respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103:

Claims 1, 2, 7, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshioka (U.S. Patent Publication No. 2003/0012999) in view of Nishioka (U.S. Patent No. 5,543,241). This rejection is moot with respect to claim 2 due to the cancellation of this claim. The Applicant respectfully traverses this rejection as to amended claims 1, 7, and 20. Claim 1, as amended, is as follows:

A fuel cell casing comprising:

a base body made of multi-layer ceramics having a concavity for housing a membrane electrode assembly formed on one surface thereof, the membrane electrode assembly having, in one principal surface and

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another principal surface thereof, a first electrode and a second electrode, respectively;

a first fluid channel formed so as to extend from a bottom surface of the concavity facing the one principal surface of the membrane electrode assembly to an outer surface of the base body, the first fluid channel being for a first fluid;

a first wiring conductor having its one end disposed on the bottom surface of the concavity facing the first electrode of the membrane electrode assembly, and its other end led out toward the outer surface of the base body;

a lid body mounted on the one surface of the base body near the concavity so as to cover the concavity, for air-tightly sealing the concavity;

a second fluid channel formed so as to extend from one surface of the lid body facing the other principal surface of the membrane electrode assembly to an outer surface of the lid body, the second fluid channel being for a second fluid different from the first fluid;

a second wiring conductor having its one end disposed on the one surface of the lid body facing the second electrode of the membrane electrode assembly, and its other end led out toward the outer surface of the lid body; and

an internal circuit formed in the base body.

Applicant respectfully submits that the cited references cannot render claim 1 obvious, because the cited references fail to teach or suggest "the first fluid channel being for a first fluid" and "the second fluid channel being for a second fluid different from the first fluid."

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The Office equates the opening portions 31 (Figure 1A) and 41 (Figure 1G) of Yoshioka (US 2003/0012999) to the first fluid channel and the second fluid channel of the present invention. However, the opening portions 31 and 41 of Yoshioka are both for supplying oxygen to the generators 11 and 12 from the atmosphere. (Yoshioka, paragraphs [0081] and [0084])

In contrast, in the present invention, one fluid channel is for supplying fuel and the other fluid channel is for supplying oxidant gas. (Applicant's specification, at p. 108, line 22-p. 109, line 14). Claim 1, as amended, clarifies this feature by requiring "the second fluid channel being for a second fluid different from the first fluid."

Furthermore, claim 1, as amended, requires that the base body is made of multi-layer ceramics and an internal circuit is formed in the base body. By forming an internal circuit in the base body, it is possible to mount an electronic part electrically connected to the internal circuit on the surface of the base body (Applicant's specification, p. 58, lines 18-23). Forming the internal circuit in the base body is facilitated when the base body is made of multi-layer ceramics. These additional features are neither taught nor suggested by Yoshioka

Nishioka cannot remedy the defect of Yoshioka and is not relied upon by the Office for such. Instead, the Office cites Nishioka for teaching a fuel cell made of ceramics.

In light of the foregoing, Applicant respectfully submits that Yoshioka and Nishioka could not have rendered claim 1 obvious, because the combination of references fails to teach or suggest each and every claim limitation. Claims 7 and 20 depend from claim 1 and cannot be rendered obvious for at least the same reasons as claim 1. Withdrawal of this rejection is thus respectfully requested.

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Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshioka in view of Nishioka as applied to claim 1 above, and further in view of Hayashi (U.S. Patent Publication No. 2002/0146610). Applicant respectfully traverses this rejection.

Claim 3 depends from claim 1 and therefore, cannot be rendered obvious over Yoshioka and Nishioka for the reasons discussed above. Hayashi cannot remedy the defect of Yoshioka and Nishioka and is not relied upon by the Office for such. Instead, the Office cites Hayashi for teaching a heating element.

In light of the foregoing, Applicant respectfully submits that the cited references could not have rendered claim 3 obvious, because the combination of references fails to teach or suggest each and every claim limitation. Withdrawal of this rejection is thus respectfully requested.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (310) 785-4600 to discuss the steps necessary for placing the application in condition for allowance.

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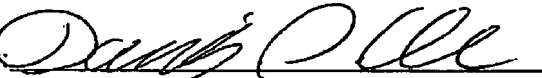
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If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

Date: August 3, 2007

By



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